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Newburgh, Bldg A22/162, Dorchester Dorset DT2 8XJ (GB).

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(74) Agent: **BOWDERY, A., O.**; QinetiQ Limited, Cody Technology Park, A4 Building, Room G016, Ively Road, Farnborough, Hampshire GU14 0LX (GB).

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(71) Applicant (for all designated States except US): **QINETIQ LIMITED** [GB/GB]; Registered Office, 85 Buckingham Gate, London SW1E 6PD (GB).

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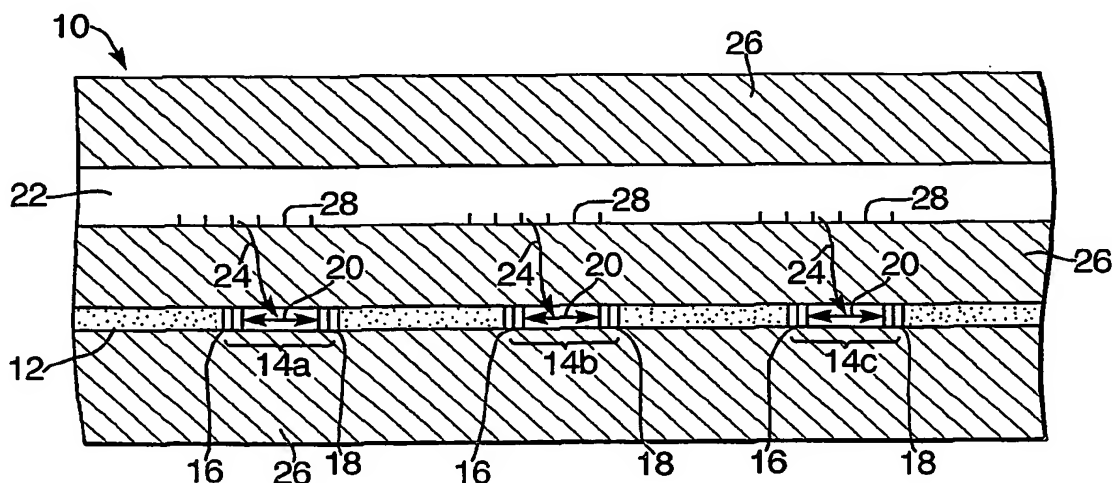
(72) Inventors; and

(75) Inventors/Applicants (for US only): **HODDER, Benjamin** [GB/GB]; Qinetiq Limited, Winfrith Technology Centre, Winfrith Newburgh, Bldg A22/163, Dorchester, Dorset, DT2 8XJ (GB). **HILL, David, John** [GB/GB]; Qinetiq Limited, Winfrith Technology Centre, Winfrith

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(54) Title: OPTICAL FIBRE



(57) Abstract: This invention relates to optical fibres, fibre lasers, fibre laser arrays and sensor systems comprising fibre laser arrays. Conventional fibre laser sensor arrangements comprise a plurality of fibre lasers arranged in series along a length of optical fibre. A pump light source is located at one end of the fibre and supplies pump light energy to each of the fibre lasers in turn. Such sensor systems experience a number of disadvantages. Firstly, there is an uneven distribution of pump power along the length of the fibre which effectively limits the number of laser devices that can successfully be incorporated into the optical fibre array. Secondly, the manner in which existing sensor systems are constructed often results in back reflections, optical losses and mechanical weaknesses. The present invention provides a fibre laser which mitigates the above problems with fibre laser sensor arrays.

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